



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/681,430

04/03/2001

Tadashi Takano

SIMTEK6140

4775

25776

7590

10/07/2004

ERNEST A. BEUTLER, ATTORNEY AT LAW
10 RUE MARSEILLE
NEWPORT BEACH, CA 92660

EXAMINER

PHAM, LEDA T

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/681,430	Applicant(s) TAKANO, TADASHI	
	Examiner Leda T. Pham	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-26 is/are allowed.
- 6) ☒ Claim(s) 27-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in response to amendment filed on 7/21/04.

In view of amendment, claims 1 – 35 are presented for examination.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “sleeve type bearing” in claims 20, 23, 30, and 33; and “the cylindrical post is detachably connected to the second end closure” in claim 22 and claim 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

Art Unit: 2834

and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this claim, the term “extending through” is indefinite because in the specification and the drawing, the rotor does not extending through the first end closure (see all the figure). According to the specification the driving shaft portion only extending into a cavity form in the first end closure.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 27 – 29, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (U.S. Patent No 5,876,298) in view of Shimizu et al. (U.S. Patent No. 6,163,093).

Referring to claim 27, Kato teaches a DC rotating electrical machine (figure 1) comprised of an outer housing (2) forming a stator (the cylindrical core having winding attaching to the housing, between assigned number 21 and 2) of said rotating electrical machine, said outer housing being comprised of a generally cylindrical center section (the part outside the core

Art Unit: 2834

stator) closed at opposite ends by first and second end closures (the parts attached to the described housing), a rotor (21) within said outer housing and extending through said first end closures (shaft 22 extending through bearing 23 and the housing portion containing gear 42) for driving connection to a related rotating machine (generator 1). However, Kato fails to teach the second end closure carries a cylindrical post extending into a cylindrical opening in the rotor for journaling said rotor within said outer housing.

Shimizu teaches a pump actuation motor having a second end closure (15) carries a cylindrical post (15a) extending into a cylindrical opening in the rotor (12a) for supporting the end side of the rotation shaft (figure 2).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the end closure of the housing as taught by Shimizu. Doing so would increase in the assembling efficiency by decreasing in the quantity of the parts and enhancement of the durability.

Referring to claim 28, Shimizu teaches the cylindrical post (15a) extends a substantial distance axially into the rotor (12).

Referring to claim 29, Shimizu teaches the cylindrical post (15a) engages a bearing (28) associated with the rotor (12).

Referring to claim 35, Shimizu teaches the cylindrical post (15a) is integrally formed with the second end closure (15).

7. Claims 30, and 32 - 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kato and Shimizu as applied to claim 27 above, and further in view of Buchanan, Jr. (U.S. Patent No. 5,644,180).

Art Unit: 2834

Referring to claims 30 and 33, the combination refs. of Kato and Shimizu teaches the claimed invention, except for the added limitation of the sleeve type bearing.

Buchanan teaches in his invention the bearing (50) associated with the rotor (40) is sleeve type bearing for supporting the other end of the rotary shaft (figure 2 —4).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the sleeve bearing for supporting the end of the shaft as taught by Buchanan. Doing so would provide a low cost bearing.

Referring to claim 32, Buchanan teaches the cylindrical post (52) is detachably connected to the second end closure (36, figure 2).

8. Claims 31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kato and Shimizu as applied to claim 27 above, and further in view of Obara (U.S. Patent No. 6,246,137 B1).

Referring to claims 31 and 34, the combination refs. of Kato and Shimizu teaches the claimed invention, except for the added limitation of the anti friction bearing.

Obara teaches in his invention the bearing (3, 4) associated with the rotor (2) is anti friction bearing for supporting the rotary shaft.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the anti friction bearing for supporting the rotary shaft as taught by Obara. Doing so would provide a spindle motor with high accuracy of rotation.

Allowable Subject Matter

9. Claims 1 – 26 are allowed.

Art Unit: 2834

10. The following is an examiner's statement of reasons for allowance: the record or prior art does not show a DC rotating electrical machine having an outer housing with a generally cylindrical center section and affixed first and second enclosures, the first end closure having an end wall portion extending across one open end of the generally cylindrical center section and forming a substantial end closure therefore and through with a portion of the rotor extends for driving connection to a related rotating machine, and a cylindrical portion extending axially away from the generally cylindrical center section and the end wall portion for forming a cavity.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

11. Applicant's arguments filed 7/21/04 have been fully considered but they are not persuasive.

The arguments are not persuasive because under 37 CFR 1.83(a) the drawings must show every feature of the invention specified in the claims. Therefore, the sleeve type bearing, and the cylindrical post is detachably connected to the second end closure must be shown in the drawing even though they are obvious for one having skill in the art to understand. Those subject matters must be in the specification and would not be a new matter.

12. Turning now to the art rejections, the claims 1 – 26 have been amended, and overcame the prior art. However, claim 27 is rejected under 35 U.S.C. 112, second paragraph. Claims 27

Art Unit: 2834

– 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato, Shimizu, Buchanan, and Obara.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (571) 272-2032. The examiner can normally be reached on M-F (8:30-6:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leda T. Pham
Examiner
Art Unit 2834

LTP
October 4, 2004

A handwritten signature in black ink, appearing to read 'Dang Le', with a stylized flourish at the end.

**DANG LE
PRIMARY EXAMINER**